Wild Salmon Stock Recovery Efforts In Washington

A salmon battles its way home.

Introduction

The past two decades have seen a steady decline of many wild salmon stocks originating from Puget Sound and the Washington Coast. A huge population influx in Washington state during the past 20 years — and its accompanying development, pollution and increased demand for water, among other factors — has resulted in a dramatic and well-documented loss of critical wild salmon habitat.

Despite efforts by tribes, state agencies and the federal government to protect freshwater habitat, the long term decline in both the quantity and quality of available wild salmon spawning and rearing habitat continues. The result is wild salmon populations that are smaller and less productive. Several stocks of salmon in western Washington are candidates for listing under the federal Endangered Species Act (ESA).

Natural forces have also contributed to the decline of wild salmon stocks in the region. The ocean-warming phenomenon known as El Nino has, in some years, caused drought conditions during the summer months and a reduction in upwelling of cold, nutrient-rich ocean waters, which has contributed to poor ocean survival and growth of young salmon.

Fisheries managers have responded to these conditions with reduced fisheries, but because fishery management is not an exact science, the response is sometimes inadequate and too late to compensate for the declines in productivity.

In 1994, for example, manmade causes (primarily loss and degradation of habitat due to development) combined with natural causes (drought and ocean-warming) to result in record low returns of wild coho and chinook salmon. In response, tribal, state and federal fisheries managers instituted the most restrictive fishing seasons ever imposed. Ocean fisheries were closed completely, while those in Puget Sound were reduced to a level never before experienced by tribal, sport and commercial fishermen. Fisheries in 1995, 1996 and 1997 were only marginally better. The closures resulted in severe economic hardship for tribal fishermen on reservations where unemployment runs as high as 80 percent. Non-Indian commercial fishermen, gear suppliers, charter boat operators, tackle manufacturers and associated industries also were hard hit by the closures.

For 1998, fishery managers are again predicting extremely low returns of salmon in many areas, and another round of severe fishing restrictions is expected. The strong El Nino event of 1997/98 also is expected to severely affect salmon stocks for the next several years.

Tribal, state and federal governments and their fisheries managers realize the increased severity of the problems facing wild salmon and the need for a more focused approach in efforts to protect, restore and manage the resource. Several inter-related planning efforts have been initiated to specifically address the problems confronting wild salmon and steelhead populations. It is important to realize that these initiatives are in addition to many ongoing activities of the tribes and Washington Department of Fish and Wildlife (WDFW) — habitat enhancement, water quality

programs and land-use planning reform, regulating fisheries and controlling the spread of fish diseases, for example — that are contributing significantly to the overall effort to improve the condition and management of wild salmon populations and their habitats.

The Wild Stock Restoration Initiative

The tribes and WDFW created the Wild Stock Restoration Initiative (WSRI) in 1991 in response to wild salmon and steelhead stock concerns and the anticipated filing of ESA petitions for many of those populations. The following general approach was established to address wild stock status and recovery:

- Inventory status of stocks;
- Review goals and objectives;
- Review management strategies (harvest, habitat and hatcheries);
- Develop recovery and management plans; and
- Monitoring and evaluation.

Salmon and Steelhead Stock Inventory (SASSI)

The first step in the Wild Stock Restoration Initiative — a statewide inventory of all salmon and steelhead stocks and their status — began in the spring of 1992. It took about one year to complete the Salmon and Steelhead Stock Inventory (SASSI), and another 18 months to complete the detailed appendices which provide the data and information used in the evaluation of stock status.

SASSI grouped Washington's 435 salmon and steelhead stocks into five status categories. Of the total, 187 stocks were categorized as healthy; 122 depressed; 12 critical; 113 unknown; and one extinct. SASSI will be periodically updated and revised to reflect changes in stock status gathered through monitoring and evaluation.

While compiling the SASSI document, it became apparent to the tribes and WDFW that it would be impossible to adequately assess salmon and steelhead habitat within the scope of the stock inventory. Because freshwater habitat is a basic limiting factor for the production of some salmon species, it was clear that an inventory of salmon and steelhead habitat must also be compiled.

Salmon and Steelhead Habitat Inventory and Analysis Project (SSHIAP)

Work on the second step in the Wild Stock Restoration Initiative — the Salmon and Steelhead Habitat Inventory and Analysis Project (SSHIAP) — began in 1995 and is expected to be completed in 1998.

The SSHIAP project will ultimately result in a blueprint for joint tribal/state cooperative action to document current habitat conditions, assess the role of habitat degradation and loss in the condition of salmon and steelhead stocks, develop stock- or watershed-specific strategies for habitat protection and restoration, and define a cooperative process to implement habitat restoration and protection strategies.

Timeline

Because of the need for quick action to reverse the decline of wild salmon and steelhead stocks, SSHIAP is using existing information. Efforts to update the information will continue throughout the life of the project. The initial assessment of salmon and steelhead habitat was completed in September 1997**.** Work is now centering on identifying potential users and developing a user-friendly interface with the database. Both SASSI and SSHIAP must be viewed as ongoing processes, not one-time efforts. Continued funding support will be necessary beyond the initial effort.

Results

SSHIAP products will include:

- Expanded habitat sections for the SASSI document that describe the location, amount and current condition of habitats used at various stages in the life of salmon and steelhead, historic habitat loss, and the natural and man-made factors contributing to habitat loss and degradation;

- A database that can be queried to provide graphical depictions of types and amounts of habitat lost and degraded, and how this affects salmonid stocks of concern;

- Maps showing critical habitats used by each stock in each stage of its life;

- A habitat protection and restoration strategy for each stock and/or watershed;

- A list identifying future study needs to fill data gaps and improve analysis; and

- A funding strategy to obtain resources necessary to implement habitat protection/restoration strategies and conduct necessary research.

SSHIAP reports will be prepared for each watershed in western Washington. Each report will include:

- An overview of each basin that includes a description of its location, stream network, climate, geology, vegetation and general land-use patterns;

- A description of the salmon and steelhead stocks present in each basin, including general habitat needs for each life cycle phase of the identified stocks;

- A description and mapping of current and historic habitat distribution and use of important habitats in the life cycle phases of each species and stock;

- A description of current habitat conditions along with the extent and primary causes of habitat loss and degradation for identified stream sections throughout each basin. Migration barriers and impacts to spawning and rearing habitat are some of the factors that will be examined. Other factors that will be investigated include instream flows and water quality;

- An estimate of how habitat loss and degradation is affecting overall production of each stock in the basin, and a comparison of limiting factors that identifies the most significant overall factors limiting production; and

- A habitat protection and restoration strategy that identifies habitat goals and targets for habitat conditions; measures needed to protect habitat, including action by tribal, state, federal, local and private entities; and measures needed to restore habitat in a basin.

Joint Wild Salmonid Policy

In 1993 the Washington Legislature passed a bill requiring WDFW to work jointly with appropriate Indian tribes to develop a Wild Salmonid Policy (ESHB 1309). Groundwork for the policy, including a draft scoping document, was completed in 1994. In late 1995, at the request of the state's governor, WDFW and the tribes were joined by relevant state agencies in efforts to finalize the joint policy.

Efforts to finalize the policy faltered in 1996 when voters approved a referendum creating a newly-empowered state Fish and Wildlife Commission to oversee management of the state's fish and wildlife resources. The commission also was granted authority to select the director of the department. Previously, the department was managed by a director appointed by the governor.

The tribes and commission initially struggled to develop a working relationship, but through perseverance were able to return to the effort of developing a joint policy, which is expected to be finalized in early 1998.

The joint Wild Salmonid Policy will lay out a framework to guide and integrate the actions of governments, agencies, industry, organizations and the public to protect and recover wild salmon stocks.

Regional or watershed initiatives are at the heart of the joint policy. Specific recovery plans will be developed for each watershed and will guide how fisheries, habitat and hatcheries will be managed.

On-the-ground examples of how the policy will work are already showing results. A five-year-old tribal/state/federal effort to rebuild extremely low Hood Canal wild summer chum stocks resulted in near record returns in 1996. Similar programs also are helping to rebuild spring chinook stocks on the White River.

The joint policy represents a significant change from status quo fisheries management by more closely integrating habitat recovery with hatchery and harvest practices. Harvest management strategies will be more risk averse. Effects of hatchery practices on wild salmon will be reduced. Fishery managers also will operate with clear standards and action strategies to deal with habitat issues.

Perhaps as important, development of the joint Wild Salmonid Policy signals a return to cooperative resource co-management by the tribes and state.

For The Sake Of The Salmon

Drawing on the foundation and spirit of cooperative management that has revolutionized natural resource management in Washington, a broad spectrum of governments, organizations and individuals gathered in 1995 to create For the Sake of the Salmon, a comprehensive regional initiative to protect and restore wild salmon stocks.

For the Sake of the Salmon provides a framework for action based on cooperation by stakeholders along the Pacific Coast. It is this partnership that distinguishes the initiative as more than just another wild salmon recovery effort. Partners include tribal governments, the states of Washington, Oregon and California, counties and municipalities, the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, National Marine Fisheries Service, Bureau of Indian Affairs, Natural Resource Conservation Service, public utility districts, the timber industry, sport and commercial fishing organizations and environmental groups.

For the Sake of the Salmon's goal is to restore salmon populations to levels that will ensure healthy sustainable natural populations and support productive fishieres. This goal is based on the premise that communities can develop the best restoration plans for their areas. The initiative provides a framework for consistent action to protect, restore and enhance salmon stocks along the West Coast.

For the Sake of the Salmon's goals include supporting and encouraging the formation of local watershed groups; developing a monitoring system to track progress toward measurable salmon recovery objectives; and developing a regional package of proposed incentives for landowners to take part in conservation efforts.

The initiative received a $125,000 start-up grant from the National Marine Fisheries Service, with additional funding provided by stakeholders. In 1996 For the Sake of the Salmon received a $1 million federal appropriation to provide watershed coordinators throughout the region. Grants to fund the positions and related activities were awarded to 31 regional watershed groups, enabling them to significantly increase their watershed protection and restoration work.

Wild Stock Restoration And The Endangered Species Act

In addition to development of the joint Wild Salmonid Policy and other aspects of the Wild Stock Restoration Initiative, considerable state and tribal staff time has been devoted to assisting federal agencies in conducting ESA status reviews of West Coast salmonid stocks.

Several western Washington salmon stocks are candidates for listing under the ESA, and were expected to be officially listed in early 1998. Results of the Wild Stock Restoration Initiative -- and the many ongoing activities of the tribes and state to address the decline of wild salmon stocks -- will figure prominently in ESA decision-making processes.

For More Information

For more information about the natural resource management activities of the treaty Indian tribes in western Washington, contact the Northwest Indian Fisheries Commission, 6730 Martin Way E., Olympia, WA, 98516, or call (360) 438-1180. The NWIFC home page is available on the World Wide Web at http://mako.nwifc.wa.gov.